CLAIMS

A presentation of all of the pending claims with their current status indicated follows.

1-27. (Canceled)

28. (Currently Amended) A spacer for holding a number of elongated fuel rods intended to be located in a nuclear plant~~, comprising:~~

[[~~a~~]] the spacer enclosing a number of cells, each cell having a longitudinal axis and arranged to receive a fuel rod in such a way that the fuel rod extends substantially in parallel with the longitudinal axis,

each cell being formed by a sleeve, having an upper edge and a lower edge,

the sleeve including a number of elongated abutment surfaces, which project inwardly towards the longitudinal axis and extend substantially in parallel with the longitudinal axis for abutment to the fuel rod to be received in the cell, and

the lower edge, seen transversely to the longitudinal axis, having a wave shape with wave peaks, which are aligned with a respective one of said abutment surfaces, and wave valleys located between two adjacent ones of said abutment surfaces; ~~and~~

wherein the upper edge, seen transversely to the longitudinal axis, has a wave shape with wave peaks, which are aligned with a respective one of said abutment surfaces, and with wave valleys located between two adjacent ones of said abutment surfaces,

each of said elongated abutment surfaces extending from a respective one of said wave peaks of the upper edge to a respective one of said wave peaks of the lower edge, and

the sleeves abut each other in the spacer along respective connection areas, each extending substantially parallel to the longitudinal axis between one of said wave valleys of the upper edge and one of said wave valleys of the lower edge.

29. (Canceled)

30. (Previously Presented) A spacer according to claim 28, wherein each sleeve includes at least four of said abutment surfaces.

31. (Previously Presented) A spacer according to claim 28, wherein each of said abutment surfaces is formed by a respective ridge projecting inwardly towards the longitudinal axis.

32. (Canceled)

33. (Previously Presented) A spacer according to claim 28, wherein the sleeves are permanently connected to each other by means of weld joints.

34. (Currently Amended) A spacer according to claim 28 ~~claim 32~~, wherein said sleeves are permanently connected to each other by means of weld joints, wherein said weld joints include an edge weld at said connection area at at least one of the upper edge and the lower edge.

35. (Canceled)

36. (Previously Presented) A spacer according claim 28, wherein substantially each sleeve is manufactured of a sheet-shaped material that is bent to the sleeve shape.

37. (Previously Presented) A spacer according to claim 36, wherein the sheet-shaped material before said bending has a first connection portion in the proximity of the a first end of the sheet-shaped material and a second connection portion in the proximity of a second end of the sheet-shaped material, wherein the first end overlaps the second end of the sleeve after said bending.

38. (Previously Presented) A spacer according to claim 37, wherein the first connection portion and the second connection portion are permanently connected to each other by means of at least one weld joint.

39. (Previously Presented) A spacer according to claim 38, wherein said weld joint includes a spot weld.

40. (Previously Presented) A spacer according to claim 28, wherein substantially each sleeve is manufactured from a tubular material which is worked to the wave shape of the upper edge and the lower edge.

41. (Previously Presented) A spacer according to claim 28, wherein the sleeve seen in the direction of the longitudinal axis has four substantially orthogonal long sides, wherein each long side includes one of said abutment surfaces.

42. (Previously Presented) A spacer according to claim 41, wherein each long side includes one of said wave peaks of the upper edge and one of said wave peaks of the lower edge.

43. (Previously Presented) A spacer according to any claim 41, wherein the sleeve, seen in the direction of the longitudinal axis, has four substantially orthogonal short sides, wherein each short side connects two of said long sides and includes a portion of one of said wave valleys of the upper edge and a portion of one said wave valleys of the lower edge.

44. (Previously Presented) A spacer according to claim 36, wherein the sleeve has a thickness of the material, which is less than 0.24 mm.

45. (Previously Presented) A spacer according to claim 36, wherein the sleeve has a thickness of the material, which is less than or equal to 0.20 mm.

46. (Previously Presented) A spacer according to claim 36, wherein the sleeve has a thickness of the material, which is less than or equal to 0.18 mm.

47. (Previously Presented) A spacer according to claim 28, wherein the nuclear plant is arranged to permit re-circulation of a coolant flow and wherein the spacer is arranged to be located in the coolant flow, the spacer including at least one vane for influencing the coolant flow.

48. (Previously Presented) A spacer according to claim 37, wherein the nuclear plant is arranged to permit re-circulation of a coolant flow, wherein the spacer is arranged to be located in the coolant flow, and wherein the spacer includes at least one vane for influencing the coolant flow, said vane being formed by a portion of the material, which extends from the first connection portion.

49. (Canceled)

50. (Previously Presented) A spacer according to claim 47, wherein the sleeve includes a slit, which extends from at least one of the upper edge and lower edge and which permits outward bending of a part of the sleeve for forming said vane.

51. (Previously Presented) A spacer according to claim 48, wherein said vane is inclined in relation to the longitudinal axis.

52. (Previously Presented) A spacer according to claim 47, wherein the sleeve seen in the direction of the longitudinal axis has four substantially orthogonal long sides, wherein said vane extends outwardly from one of said long sides.

53. (Canceled)

54. (Previously Presented) A spacer according to claim 28, wherein the spacer, seen in the direction of the longitudinal axis, has a substantially rectangular shape and includes at least two separate outer edge elements which extend along a respective side of the spacer.

55. (Previously Presented) A spacer according to claim 54, wherein one of the four corners of the rectangular shape is reduced through the lack of outer sleeve, and that the spacer includes a separate inner edge element, which extends along two of said sides and along said reduced corner.

56. (Previously Presented) A spacer according to claim 55, wherein the inner edge element includes a vane, which is located at said reduced corner and which is inclined upwardly and inwardly towards a centre of the spacer.

57. (Currently Amended) A fuel unit for a nuclear plant including a number of elongated fuel rods and a number of spacers for holding the fuel rods, wherein

each of the spacers enclose a number of cells, which each have a longitudinal axis and is arranged to receive one of said fuel rods in such a way that the fuel rod extends in parallel to the longitudinal axis,

each cell is formed by a sleeve, which has an upper edge and a lower edge,

the sleeve includes a number of elongated abutment surfaces, which project inwardly towards the longitudinal axis and extend substantially in parallel with the longitudinal axis for abutment to the fuel rod to be received in the cell;

the lower edge, seen transversely to the longitudinal axis, has a wave shape with wave peaks, which are aligned with a respective one of said abutment surfaces, and wave valleys located between two adjacent ones of said abutment surfaces; ~~and~~

wherein the upper edge, seen transversely to the longitudinal axis, has a wave shape with wave peaks, which are aligned with a respective one of said abutment surfaces, and with wave valleys located between two adjacent ones of said abutment surfaces,

each of said elongated abutment surfaces extending from a respective one of said wave peaks of the upper edge to a respective one of said wave peaks of the lower edge, and

the sleeves abut each other in the spacer along respective connection areas, each extending substantially parallel to the longitudinal axis between one of said wave valleys of the upper edge and one of said wave valleys of the lower edge.